

T
171
C2845

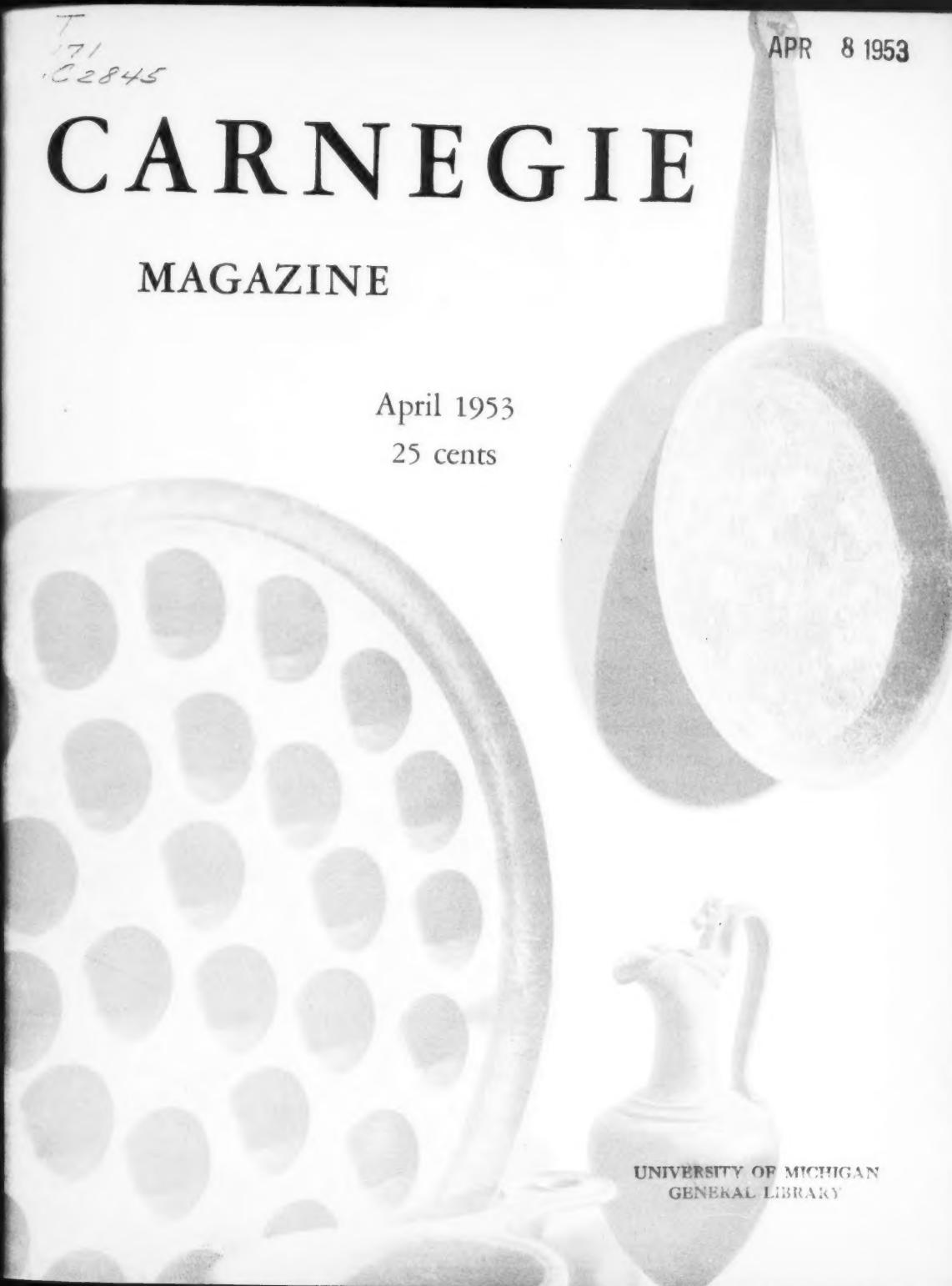
APR 8 1953

CARNEGIE

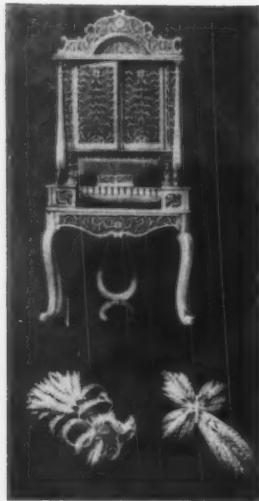
MAGAZINE

April 1953

25 cents



UNIVERSITY OF MICHIGAN
GENERAL LIBRARY



Exquisite ivory carvings made by skilled Swiss craftsmen. From the collection of the Carnegie Museum.

The Swiss Economy

Approximately 1618-1848 A.D.

THE SWISS are among the most industrious and trade-minded peoples of Western Europe. Without direct access to the sea . . . completely bordered by four countries, Switzerland has achieved a unique neutrality that has cemented its position as one of the banking centers of the world.

It was in the period from 1618 to 1848 A.D. that Switzerland fought, planned and realized the basis for its present day independence.

During the Thirty Years' War (1618 to 1648), Swiss mercenaries, numbering sixty to seventy thousand men, hired out as soldiers for warring European powers. From this service, great wealth poured into the Swiss confederation and stimulated the growth of industry.

This era also saw agriculture prosper with increasing exports of cattle, horses, wine and cheese. Trade with the Far East in fine fabrics and spices developed small businesses and a middle class.

After severe setbacks to its neutrality during the Napoleonic Wars, Switzerland achieved complete independence in 1848.

The Swiss developed modern banking practices at an early date because of the increased activity in their trade.

MELLON NATIONAL BANK AND TRUST COMPANY

Member Federal Deposit Insurance Corporation

CARNEGIE INSTITUTE 4400 Forbes Street, Pittsburgh 13, Pennsylvania

Weekdays 10:00 A.M. to 5:00 P.M.

Tuesdays 10:00 A.M. to 10:00 P.M.

Sundays 2:00 to 5:00 P.M.

CAFETERIA OPEN FOR VISITORS TO THE BUILDING

Luncheon 11:00 A.M. to 2:00 P.M., weekdays

Dinners discontinued after April 2 until autumn

Snack Bar 2:00 to 5:00 P.M., daily

CARNEGIE LIBRARY OF PITTSBURGH 4400 Forbes Street, Pittsburgh

Weekdays 9:00 A.M. to 9:00 P.M., Reference services to 10:00 P.M.

Sundays 2:00 to 5:00 P.M.

COVER

Bronze reproductions of cooking utensils from Pompeii and Herculaneum, along with other household furnishings, surgical and musical instruments, and examples of the decorative arts, given by Andrew Carnegie to the Institute in 1901 are now on display in the Hall of Architecture.

Our pans for frying and for baking buns today are not very different from those used in Pompeii some two thousand years ago, as shown on the cover. The urn-shaped pitcher is of a design popular with the Romans. Use of animal head and paws for decoration is also typical.

CARNEGIE MAGAZINE, dedicated to literature, science, and art, is published monthly (except July and August) at 4400 Forbes Street, Pittsburgh 13, Pennsylvania, in behalf of Carnegie Institute, Carnegie Library of Pittsburgh, and Carnegie Institute of Technology. James M. Bovard, editor; Jeannette F. Senef, editorial assistant; Florence A. Kemler, advertising manager. Telephone MAyflower 1-7300. Volume XXVII Number 4. Permission to reprint articles will be granted on request. Copies regularly sent to members of Carnegie Institute Society. Subscription \$2.00 a year. Single copies 25 cents.

IN THIS ISSUE

	<i>Page</i>
Primeval Planting for Point Park	Margaret M. Winters 113
Blairsville Before Blair	Don W. Dragoo 117
Modern Moods and Modern Quests	Solomon B. Freehof 121
Among Our Friends	125
New Trends in Photography	Stanley W. Morgan 126
The Story in Bronze of Pompeii and Herculaneum	Paul Chew 129
Mayflower 1-7300	E. R. Eller 133
The Joy of Learning	W. LeRoy Black 137
Art and Nature Bookshelf	Perry Davis 140

CALENDAR FOR APRIL

NEWS PIX SALON

Three hundred top news pictures have been chosen by the Press Photographers Association of Pittsburgh for the ninth annual News Pix Salon at the Museum April 20 to May 3. Photographs will be exhibited in six groups—news, sports, features, animals, society, and pictorial, with prize winners enlarged by the Pittsburgh Photographic Library at the University of Pittsburgh.

This year's show includes two novel displays: the story of an actual photographic assignment, from city desk to front page, shown in slides provided by the Pittsburgh *Sun-Telegraph*; and the evolution of a camera, prepared in co-operation with Graflex, Inc.

FIFTY BOOKS OF THE YEAR

Sponsored by the Student Chapter of the American Institute of Graphic Arts, Homer E. Sterling, faculty advisor, the touring exhibit of 50 outstanding books of 1952 will be displayed in the Lending Room of Central Carnegie Library from April 4 to 26. The books are selected on the basis of offering the best solution to the problem of interpreting literary content in terms of design and production.

SCHOLASTIC ART AWARDS

The twenty-sixth annual Scholastic Art Awards exhibit will be held in the fine arts galleries at the Institute from May 2 to 29, sponsored by Scholastic Magazines. Art and craft work by high- and technical-school students all over the country, selected by an outstanding jury of artists and craftsmen, will be shown.

PHOTOGRAPHIC SALON

The fortieth annual Pittsburgh Salon of Photographic Art continues at the Institute to April 19, sponsored by the Photographic Section of the Academy of Science and Art of Pittsburgh. The exhibit offers 300 black and white prints, with special showing of 284 color slides.

SEVEN PAINTERS OF ISRAEL

Seventy-five paintings by seven Israeli artists continue at the Institute to April 12. The exhibit is sponsored by the American Fund for Israel Institutions and organized by the Institute of Contemporary Art of Boston.

SPRING CONCERT SERIES

*Tuesday evenings, 8:15 o'clock
In Music Hall*

Marshall Bidwell, assisted by various outstanding local choral groups listed below, is presenting organ concerts on successive Tuesday evenings through April 28. Members of Carnegie Institute Society and friends of the Institute are invited to attend. There is no admission charge.

April 7—SOUTH HILLS HIGH SCHOOL CHOIR

Ralph Crawford, conductor

April 14—WILKINSBURG HIGH SCHOOL A CAPPELLA CHOIR

Robert O. Barkley, conductor

April 21—HEINZ CHAPEL CHOIR

Theodore M. Finney, conductor

April 28—CAMERON CHOIR, CARNEGIE INSTITUTE OF TECHNOLOGY

Richard L. Camp, conductor

SUNDAY ORGAN RECITALS

An organ interlude with performance of the best music of every time and country by Marshall Bidwell continues from 4:00 to 5:00 o'clock each Sunday afternoon in Music Hall, under sponsorship of the Arbuckle-Jamison Foundation.

CHILDREN'S HOSPITAL

Photographs that give a documentary report on this Pittsburgh institution are on display this month at the Museum. Esther Bubley, of the Pittsburgh Photographic Library at the University of Pittsburgh, stayed two weeks at the Hospital to get her photographs.

FOR THE CHILDREN

Story hour for school-age children is Saturday at 2:15 P.M., in Boys and Girls Room at the Library.

Moving pictures of travel and the out-of-doors are shown each Saturday at 2:50 P.M., in Lecture Hall.

Pre-school story hour comes on alternate Tuesdays, April 14 and 28, at 10:30 A.M., in Boys and Girls Room, with talks for mothers by staff members at the same time.

ART EXCHANGE PROJECT

Painting by boys and girls of grades 7 through 12 in the greater Pittsburgh area, which will be sent abroad in June under the Art Exchange Project sponsored by the American Junior Red Cross and the National Art Education Association, will be exhibited at Carnegie Library from April 26 to May 21. Fifty paintings by European school children will also be shown. The Board of Public Education of Pittsburgh is co-operating in this project, with A. Dorothea Allston as chairman.

PRIMEVAL PLANTING FOR POINT PARK

MARGARET M. WINTERS

LOOKING at the Point today it is startling to realize that in 1806 it inspired one man—a jurist—to write, "There is not a more delightful spot under heaven to spend any of the summer months than at this place." Indeed Judge Hugh Henry Breckenridge went even further and stated that on this same land, in our lifetime entirely occupied by the products of industry and commerce, "the finest gardens in the known world may be formed." Thus, once again it is brought home to us that in the Point, Pittsburgh has a heritage unique naturally as well as politically, and until recently neglected.

Point Park was conceived and developed as a memorial to that heritage. It includes the area from Barbeau Street down to the fork of the Allegheny and Monongahela rivers. Of the thirty-six acres comprising the Park, eighteen acres will lie west of the proposed bridges and highway interchanges. (See diagram on next page.) The general recommendations of the Allegheny Conference on Community Development, which was charged by the Commonwealth's department of forests and waters, Samuel S. Lewis, secretary, with the responsibility of procuring preliminary plans, included the advice "that all Park development west of the highway interchange be restricted to conditions and events relating to the natural, military, and social history

Miss Winters, a native of Mt. Washington, is on the staff of Ralph E. Griswold & Associates, Pittsburgh firm in charge of landscaping the Point and other new parks. A graduate of Wellesley College and Cornell University's College of Architecture, she has worked with landscaping firms in New York City and Washington, D.C., and earlier for a time directed the Pittsburgh Garden Center.

H. Dorothy English, of the Pennsylvania Room at Carnegie Library, helped on research for her article.

prior to the year 1800 A.D." Since then this policy has been extended to include the entire thirty-six acres.

But what is the botanical history of the Point? The only trees existing in the area are the ginkgos near the Block House, planted by the Daughters of the American Revolution as memorials to certain of the early settlers; and the plane trees at the tip of the Point, planted by the Woman's Club of Pittsburgh as memorials to various outstanding citizens. All have been put there within the last fifty years—in the whole region there is not a single tree to which we can point and say, "This was here at the time of our Revolution." The first endeavors of the early settlers were to clear off farmsites and destroy cover in which Indians might hide. They succeeded too well from the historian's point of view. Floods conspired to help them.

Pittsburgh is fortunate in having at Carnegie Museum a man who has devoted many years to the study of our ecology and is an authority on the plant geography of western Pennsylvania, past as well as present—director emeritus O. E. Jennings. In consultation with him, plants were selected for the Park that would not only be suitable from a practical point of view but would also be correct historically.

There are a few records of the planting that existed at the Point in the early colonial period. George Washington writes in his journal that in 1753 there was "a considerable bottom of flat well-timbered land all around it." A few years later he mentions riding about forty-three miles down the river to the Point, passing "a great deal of exceedingly fine land, chiefly white oak." The Point was considered to be such a choice,

fertile piece of ground that, before the Revolution, the Penns planned to retain it in one of their Manors. Craig's *History of Pittsburgh* mentions a survey made for them in 1769 which noted "Spanish oak," "sugar-trees," "white oak," "white walnut," "hickory" and "red oak" growing in the area at that time. Colonel Henry Bouquet, too, as Rose Demorest tells us, remarked: "The beauty of this place is beyond description. The land is so rich, pasture so abundant, everything should thrive."

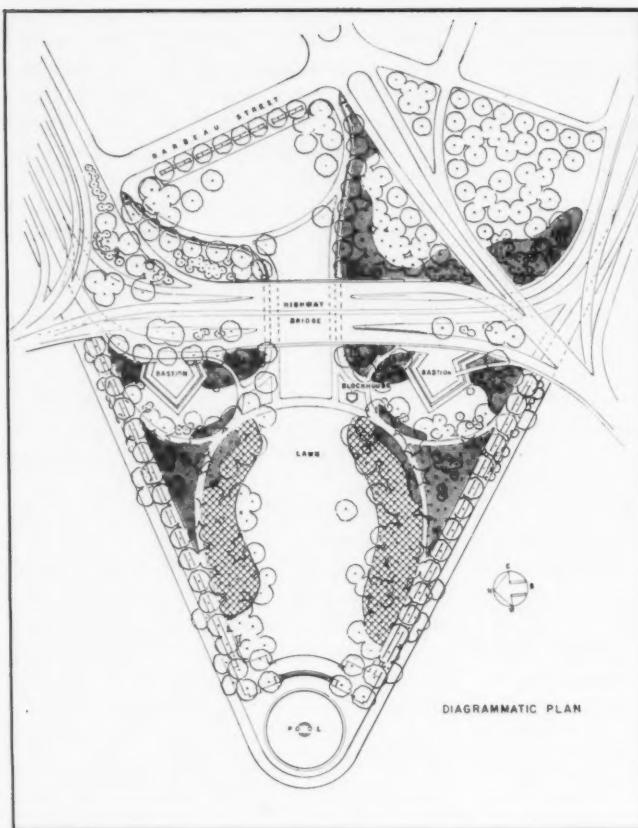
There were extensive vegetable gardens

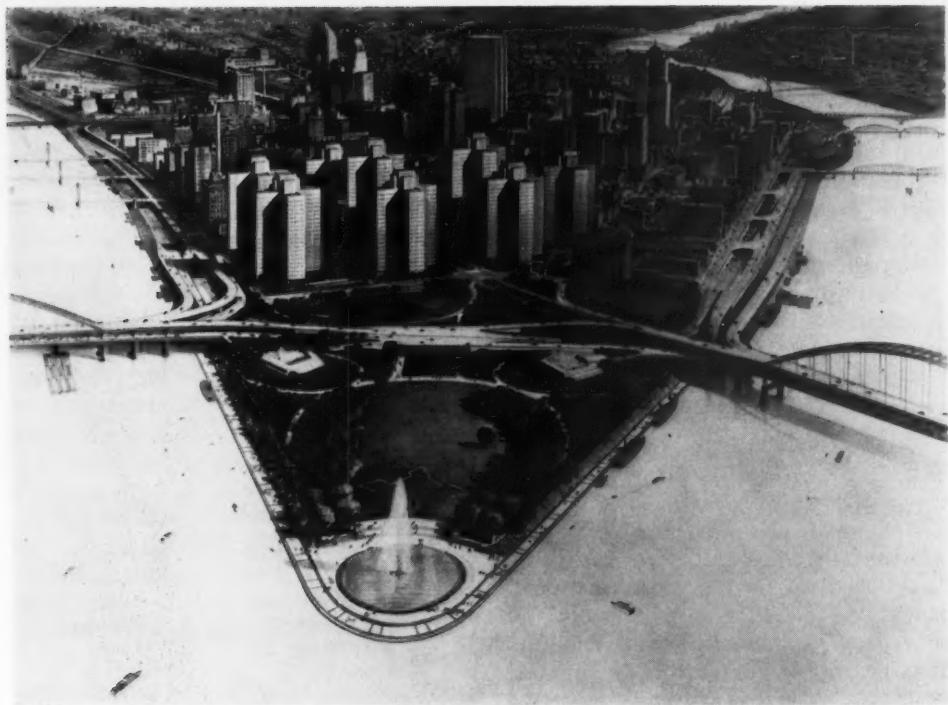
attached to Fort Pitt to supply the garrison through the winter. Known as "The King's Gardens" they were located just east of Barbeau Street, west of Stanwix Street and north of Liberty Avenue, occupying about four of our city blocks and enclosed by pickets. The list of standing artificers at the Fort included a gardener with two assistants. The fields around the Fort yielded corn, hay, spelts, rye, and oats. Beyond was an orchard of apple and pear trees, on the plantation of one of the Fort's commanding officers.

The new planting, however, will be restricted in general to material that might have been there when George Washington first saw the Point in 1753, no attempt being made to restore the man-made gardens that lay east of Barbeau Street. In the area east of the highway bridge some exotic plants will be used to provide a transition between the planting in the rest of the Triangle and the Park.

The diagrammatic plan shows the scheme. The Block House will remain just where it is now. Walks will lead from the City streets under the highway bridge to the various points of interest in the Park. Two of the bastions of Fort Pitt will be reproduced.

EAST OF THE HIGHWAY BRIDGE
Starting at Barbeau Street east of the highway bridge there will be a





LANDSCAPE ARCHITECT'S DRAWING OF THE POINT AREA SHOWING THE RELOCATED BRIDGES

rather formal planting that will tie in with the type of development in the rest of the downtown area—Mellon Square, Gateway Center, and similar spots. The east edge of the Park will be marked by a row of sugar maples, under which will be placed benches facing into the park. Sitting there, the observer will look across a low hedge to an expanse of open lawn dotted with a few of the elms and beech which once made up the forest. Through the opening under the bridge he will see the Park beyond. From certain spots on Liberty Avenue there will be a long vista through the Park to the fountain and Ohio river.

Entrance walks leading to the Museum and the rest of the Park are outlined by hedges of American hornbeam, about ten feet high,

edged with myrtle and backed up with American beech trees.

The rather thick plantations north and south of the lawn will give a parklike character to the areas adjacent to the city streets, serving also to screen the hustle and bustle of traffic from the park. These plantations are to be made up of the following varieties:

Large trees:

American Elm	Honeylocust
Sweetgum	Cucumber tree
Shagbark Hickory	

Small trees:

Dogwood	Hawthorn
---------	----------

Shrubs: (Indicated by shaded areas)

Elderberry	Viburnum
Laurel	Benzoin

Planting islands between highway lanes will be filled with Hall's Japanese Honey-suckle.

Here, too, in this area east of the highway bridge, the memorial ginkgos and plane trees, moved from their present locations at the Block House and the tip of the Point, will be given places of importance in keeping with their significance. New locations for these memorial trees will be chosen in consultation with the Fort Pitt Chapter of the Daughters of the American Revolution and other authorities.

WEST OF THE HIGHWAY BRIDGE

West of the highway bridge, the park will be an open lawn surrounded by heavy planting through which paved walks lead to the bastions and to points overlooking the pool at the tip of the Point and to the pool plaza. From this plaza the river promenades will parallel the Allegheny and Monongahela, where strollers can watch marine activities. Mooring rings will be provided for large and small craft. Between the promenades at the low level and the upper lawn area will be a steep bank paved with stone to resist erosion. In all directions there will be views of the rivers seen through the trees. Only in the spots that are shaded on the diagram will there be shrubs or low-branched trees to cut off the view.

All planting in this western part of the Park will resemble the primeval forest as closely as it is possible to reproduce it in the midst of the city. Trees and shrubs chosen for this section include:

Large trees:

American elm
Pin Oak
Red Oak
Scarlet Oak
White Oak
Shingle Oak

Sugar Maple
Red Maple
Blackgum
Tulip tree
Beech

Small trees:

Hawthorn

Dogwood

Shrubs: (Indicated by shaded areas)

Laurel

Viburnum

Elderberry

Benzoin

To reproduce the natural woodland floor of the primeval forest, certain areas, shown crosshatched in the diagram, will be of a special woods soil. These areas will be raised about one foot above the lawn, held in place by large stones laid as a ledge in a naturalistic manner and planted with low-growing native plants under the trees. In addition to the rock ledge, a post and rail barrier about eighteen inches high will protect the area from stragglers. For the cover, only shade-tolerant plants which make their growth before the trees leaf out will be used, such as:

Partridgeberry
Wintergreen
Lycopodium
Spring beauty
Wild Phlox
Bloodroot

Wild Ginger
Indian Turnip
Sweet Cicely
Black Snakeroot
Wild Grape
Bittersweet

Springing from tree pockets in the paved bank above the riverside promenade will be a few willows and American hornbeam.

A LIVING REMINDER

So it is hoped that within a few years it will be possible once again to see the rivers and surrounding hills through vistas similar to those seen by the first white man at the Point, a living reminder of our heritage from those stirring and momentous days. And perhaps a twentieth-century Judge Breckinridge will again repeat his words, "Here we have town and country together. How pleasant it is . . . to walk out upon these grounds, the smooth green surface of the earth and the woodland shade softening the late fervid beams of the sun."

BLAIRSVILLE BEFORE BLAIR

DON W. DRAGO

MAN has manifested interest in his predecessors from the dawn of history. It is only natural that we should be interested in the peoples that preceded us in the fields and forests and along the streams of western Pennsylvania. Unfortunately the many early travelers, traders, and missionaries were all too casual in the recording of their observations of the Indian groups with whom they came in contact. In turn, the Indian had been content to preserve the history of his forefathers through oral traditions which were distorted or lost with the passage of time. Consequently the student of history reached an impasse, and the archeologist with his specialized techniques was called upon to analyze the culture of the various Indian groups who had made this land their home.

Carnegie Museum's Upper Ohio Valley Archeological Survey, made possible by a grant from the Sarah Mellon Scaife Fund, has proved western Pennsylvania a fertile field for investigation. During the past three years several hundred sites of aboriginal occupation covering a wide span of time have been found and recorded. In the course of the survey the remains of what appeared to be an important village of the Late Prehistoric period (1500-1700) were found on the southern edge of the town of Blairsville and within the flood zone of the new Conemaugh River Reservoir. The probability that the site would be inundated prompted the Museum to conduct test excavations there in June and

After exploring in Arabia with the Museum's section of man, Mr. Dragoo joined the staff last year as assistant field archeologist. He took his M.A. at Indiana University, did further graduate work at the University of New Mexico, and then worked two years with the Indiana Historical Bureau.

July of 1952. The National Park Service, concerned over the imminent destruction of the site, executed a contract with Carnegie Museum for large-scale excavations, which were carried out in October and November 1952.

The only secrets given up by the site before excavation commenced had been a number of arrowpoints, pottery sherds, and stone objects found by the former owner, Edward Johnston. To the casual observer there was nothing about the flat, rich farm field on the terrace north of the Conemaugh to suggest traces of a thriving Indian town. Time had erased all surface indications of the structures that had once been homes and fortifications of a forgotten people. Hidden under the earth's cover, however, remained the archeological story told on these pages.

Soon after the excavations had begun, the remains of the village fortifications were discovered by the finding of a long row of post moulds (dark, circular strains left in the subsoil by the rotted post and occasional cultural debris that had fallen into the original hole). There had been a stockade some four hundred and fifty feet in diameter that had surrounded the village and protected the people from the attacks of marauding bands of hostile groups. The remains of two and portions of a third and possibly a fourth stockade were found. When a stockade had become weakened by age it had to be replaced by a new structure that was often made larger to accommodate an increasing population. Inside this protective wall the people constructed their homes and lived their lives, venturing outside of it only to till their fields, to fish and to hunt.

Around the inside of the stockade the people built their houses in a somewhat

smaller circle. The central part of the village appears to have been an open plaza where many of the social activities took place. The typical house was a circular structure some twenty feet in diameter, made of slender saplings placed in the ground and arched to the center of the house where they were tied. The framework was then covered with bark and skins. Inside the house was a fire pit for cooking and warmth. Near the inner walls were found remains of small structures which may represent low platforms used for beds. Attached to the house was an enclosed pear-shaped pit that served as a storehouse for food.

The staple food of these people appears to have been maize grown on small fields cleared from the forest outside of the village. Added to this were fish and mussels from the streams, and meat supplied by the abundant animal life of the area. Animal bones and other refuse from daily life were buried in garbage pits dug throughout the village and in the floors of the houses. From the study of these bones we find that the deer and elk were favorite items on the menu.

For cooking and storing food, pottery vessels were made of clay tempered with crushed mussel shells. These vessels were made in a number of forms, the most common being a globular pot shape. From pottery clay were fabricated elbow pipes in which native tobacco was smoked. Miniature vessels were made for the children, and



BURIAL OF AN INDIAN WOMAN AND CHILD IN THE SAME GRAVE
UNCOVERED BY MUSEUM EXCAVATIONS NEAR BLAIRSVILLE

clay balls about the size of marbles may have been used in some type of game.

From flint the people made small triangular arrow-points, scrapers, drills, and knives. Stone was used for ungrooved axes, hammers, anvils, and mortars. Awls, fish-hooks, pendants, and beads were made from animal bones and teeth. Many useful objects were undoubtedly made of wood but, unfortunately, climatic conditions of the area were not conducive to the preservation of such objects.

What do we know about the people and their customs? It is quite difficult to reconstruct the social life and beliefs of a people from objects, but a study of burial methods and human remains offers many insights into these phases of human life. At the Johnston site seventeen burials of men, women, and children were found in the areas excavated. There seems to have been no particular fear of the dead, for the burials were made within

the village and near the dwellings. The body was customarily flexed on its side in a shallow pit no larger than necessary to receive the remains. Only on rare occasions were objects placed with the body.

The most spectacular burial was that of a woman and a child in the same grave. Around the waist and legs of the woman were over fourteen hundred bone beads that had been sewed onto a skirt probably made of buckskin. Encircling the neck of each skeleton was a small necklace of shells of a species that has never been taken from waters north of the Gulf of Mexico. These shell beads indicate that the people were in touch with their neighbors and on established trade routes from distant areas. Included with these burials was an unusual compound pottery vessel, which also points to contacts outside of the immediate area. The only other object found with a burial was a shell necklace around the neck of an infant.

Study of the skeletons indicates that the people were rather well-proportioned and of medium stature. It is difficult to determine their head form because of deformation. The backs of the adult skulls show a marked flattening. This may have been caused by the practice of strapping the infants onto a cradle board. It is well known that some groups intentionally deformed their skulls as a sign of beauty. The number of adult individuals from the site was far too small a sample to permit any definite conclusions concerning this custom.

The rate of infant and child mortality was high, since ten such immature skeletons were found as compared to seven adults. There is some indication of disease in epidemic form, as multiple burials were found in a single grave. One grave contained the skeletons of three small infants. Disease often caused deformities of the bones, and the teeth of nearly all the skeletons contained cavities.

From this evidence it appears that the diet and sanitary conditions were none too good. It is not difficult to imagine this when the small houses, numerous garbage pits outside and within the house, and the many shallow human burials within the village are considered. Sufficient evidence also exists to indicate that rats and other vermin were plentiful. The stench of such a town must have been terrific on a hot summer day.

How long was the village inhabited? The number of burials uncovered and an estimate of those



PIT AND POST MOULDS OF A SMALL STORAGE HOUSE
TEN INCHES BELOW THE SURFACE, AT THE SAME SITE

probably to be found in unexcavated parts of the village would denote a relatively long occupation by a group ranging from two hundred and twenty-five to two hundred and seventy-five individuals. However, the most reliable indicators of long occupation are the multiple stockade lines, overlapping house patterns, burials intrusive into preceding structures, and the great multitude of post moulds covering the site and pointing to building and rebuilding. All this evidence signifies an occupation of at least a hundred years.

Finally, who were these people and when did they live? Archeologically speaking they belonged to the Monongahela cultural groups of the Mississippi pattern of Late Prehistoric times. Available evidence discloses that there was an intrusion of Mississippi culture from the Lower Ohio Valley into this area for a period of several hundred years before the coming of the Europeans late in the seventeenth century. Sites from the beginning of

this intrusion to its dominance (1650-1750) at early historic times have been found in southwestern Pennsylvania. The Johnston site appears to have been in existence during the late midperiod (1550-1650) of Mississippi influence, on the basis of pottery types and the lack of evidence for historical contacts. For reasons which are as yet not clear, this site was abandoned and the people in all probability were living at a new location when the Europeans entered the area.

Colonial history tells us that while the Iroquois claimed overlordship of southwestern Pennsylvania during the seventeenth and eighteenth centuries, it was actually occupied by the Delawares and Shawnees. The suggestion has been made that the Shawnee were responsible for villages like the one under discussion but as yet this has definitely to be proved. Carnegie Museum's projected archeological program aims at gaining the answer to this problem and to many others equally intriguing.

In Trust ADMINISTRATION
FOR YOUR FAMILY

We supplement effective business-like procedure
with kindly understanding of human relations

1902-1953

*More than Fifty Years
of Continuous Banking
and Trust Service*

**COMMONWEALTH
TRUST COMPANY OF PITTSBURGH**

312 FOURTH AVENUE

Branches: Aspinwall • McKees Rocks • Mt. Lebanon • North Pittsburgh

WILLIAM B. MCFALL, President

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION

MODERN MOODS AND MODERN QUESTS

Reviewing "Adventures in Two Worlds," the story of a changeful career

SOLOMON B. FREEHOF

IN his *Meditations* the great Roman emperor-philosopher, Marcus Aurelius, left a world classic. He wrote this stoical, heroic, and remarkably beautiful book partly in army camps fighting the invaders, and part of it in the court in Rome. He judged and knew men, and he says somewhere in the book something special about the worth of man. It is a brilliant and a deep saying, namely, that a man is worth what the things are worth with which he occupies himself. That is to say, the value of a personality is not to be judged by the total of a man's achievements—some of them may be worthless; certainly he is not to be judged by his pretensions, because they may be empty. Find out what the things are worth that occupy his days and his months and his years, and by their value you will know his value.

Truly what a man is, even his temperament, even his selection of words, and his choice of alternatives at every crossroad of life, is determined frequently by his livelihood. Lawyers get to be certain kind of people. Judges become a recognizable type. A farmer who lives on the soil, and in spite of his own temperamental impatience has to measure the actions of his life according to the slow rhythm of nature, tends to become an earth-rooted, quiet, solid man. It is noteworthy that these novels which give the most convincing description of the personality of their characters are those that go deepest into the livelihood of the characters. Of all the fine novels of Sinclair Lewis, the one for which he was given the Nobel prize was one in which life and livelihood were intertwined, the story of a Doctor Arrowsmith. The finest of

the novels about China is the *Good Earth* by Pearl Buck, in which the livelihood of the farmer is interwoven with his life.

Of course even the best of novelists can achieve only an approximation of a man's true character, because a novelist is generally an observer on the outside of the livelihood. On your summer vacation you may spend many hours every day in the shop of a good cabinetmaker. Watch him and you will learn a great deal of the craft and of the effect on the man's personality. He thinks and talks in a certain way, and a novelist, observing the livelihood, will understand something of the life. But the cabinetmaker knows many important things that he never put into words: The feel of the wood. It is a piece of mahogany as the other piece was also mahogany, but the grain is a little rougher and the plane that is going to plane it will have to be set a little differently and it may be that with this piece he will need to make another sort of joint. All these things are not put into words, but they are part of the fiber of his personality: all the skill, the wisdom of the hands, the keenness of the eye, the forgotten judgment that piles up into automatic decisions. Unfortunately the cabinetmaker himself is inarticulate, or he could tell more things about his livelihood than even the keenest novelist could tell, and therefore could reveal much more about his life.

This explains something of the genius of Geoffrey Chaucer. He was a versatile Englishman of the fourteenth century who himself had been in a number of professions. About 1350 he wrote his *Canterbury Tales*. In it he gathered people of different stations and dif-

ferent occupations: a knight, a prioress, a canon, a merchant. He brought them to the Tabard Inn on the outskirts of London and was going to lead them on a pilgrimage to Canterbury, to the shrine of St. Thomas a' Becket. And it is in the Tabard Inn, at the beginning of the pilgrimage, that the whole story is really told. Each person, each livelihood, tells his story or rather a story that interests him or her. The knight tells the story about chivalry, tournaments; the canon tells the story about the transmutation of metals, the dream of alchemy, of turning base things into nobler metals, which seemed to be one of the futile dreams of the Middle Ages and has come true in our day. The prioress tells the hideous story of Hugh of Lincoln and the blood accusation that stained the mind of Europe. Another one of the canons speaks of a pact with the devil, an earlier form of the Faust story. Thus each person tells the kind of a story that appeals to him. Each one reveals what his livelihood has made of him, and all of them together reveal the soul of the Middle Ages. That is the genius of Chaucer.

Would it not be enlightening if we could do this today, if some great author approximating the genius of Geoffrey Chaucer would take, say, twenty people—a lawyer, a doctor, a clerk, a professional soldier, a scientist, minister, judge, all the leading types of livelihood in our day—bring them together to one pilgrimage, unite their hearts in one quest, and then let each tell his story? If you could do that we would have what Chaucer achieved—a real picture of our age.

Unfortunately it is virtually impossible to have a modern *Canterbury Tales*. In the first place, this could be done in the Middle Ages where people had a common quest, when one could imagine people of every stage of life uniting in the belief and in the confidence of the validity of a pilgrimage to the tomb of

St. Thomas a' Becket. Every social class shared in a common belief. But is there a common substratum of faith today which could unite the scientist and the minister, the judge and the doctor, the laboratory worker and the steel worker? On what pilgrimage and to which sacred shrine could you unite all the livelihoods of this distraught age? It would be very difficult to do.

Yet perhaps we could approximate the idea if every profession expressed itself separately, and we put the stories together in a sort of anthology. But that too is difficult because certain professions are not prone to express themselves freely. Do you notice how few ministers have written successful novels? There is a reason for it. A minister is too articulate; he has to talk every Sunday. He has to talk two or three times a week and sometimes more often. He has not the time to store up impressions, to build up the treasury of ideas that ultimately might go into a book. Whatever currency of thought comes to him, he has to expend it at once. A minister is too articulate; but their children, their wives! The most successful nonfiction novel of our time is by the wife of a minister, *A Man Called Peter*. Often children of the manse, children of grandchildren of ministers, look back, and can write a novel about a minister's life. Lawyers are not often successful either because of the reverse reason. If a minister is too articulate and uses up week after week whatever impressions he has gotten from life and cannot save them up for a novel, a lawyer is professionally tight-lipped.

This is the third of four articles derived from the public book reviews given annually by Dr. Freehof at the Rodef Shalom Temple. His review of Gladys Schmitt's *Confessors of the Name* will conclude the series next month. Dr. and Mrs. Freehof leave Pittsburgh April 4 for a three-month tour of Israel, Italy, France, and his native England. The tour is a birthday gift from the Rodef Shalom Congregation to their rabbi.

Every word with him weighs at least half a pound and is worth five dollars. He reads a lease, paragraph by paragraph, word by word. A wrong word might result in a lawsuit. A man so tight-lipped and so stingy of articulation as he must be is rarely a novelist.

The one livelihood that has turned with success to the literary life is the medical profession. There must be a reason for it. It might be that doctors see all manner of people with the mask off, observe how people react to fear, how they respond to pain, how easy or how difficult it is to recover hope of health, how much self-discipline they have or lack. A doctor sees human nature in vast variation and does not usually write more than a few prescriptions. Thus all his impressions pile up in his mind. One of the first great literary men of America was Oliver Wendell Holmes, Sr., who was a doctor. He was a professor of anatomy at Harvard. One of the best sellers of the last twenty years, *The Story of San Michele* was by a doctor, Axel Munthe. Alexis Carroll, a doctor, wrote *Man The Unknown*. The prime example is, of course, A. J. Cronin. Here is a man who had a successful medical career, at least a highly lucrative medical career, then left it suddenly and went into literature and became a world best seller. Thus his life and his livelihood are each twofold. He lived two lives; he has had two livelihoods. Having been a doctor, he has seen enough of life during his first livelihood to pile up material for his second. These two lives of his are merged into a fascinating book: *Adventures in Two Worlds*.

It is a strange collection of short stories. Every short story concerns something that happened to him. Just by reading these stories, which are interspersed by an avowedly autobiographical note at times, you get the story of his two careers. At the end of the book he summarizes his life, and he came to the conclusion that the mistake of his life

and the cause of his discontent even after two great career successes was the very hunger for success, that it was a mistake to perpetuate the drive of his youth, the dynamism of the young, starveling, Scottish medical student, fighting his way to success. It is the wrong goal in life and he said he is going to stop seeking it. Then he said, "I do not know when it happened, but I had become religious again." In fact, his latest best seller before this one is the *Keys of the Kingdom*, one of the fine religious novels of our day. It is in this religious mood that he ends his book.

In the Biblical book of *Numbers* there is an incident relevant to this theme. Eldad and Medad were prophesying in the camp of Israel. Young Joshua was horrified at these amateurs presuming to prophesy. He came running to his master Moses, the prophet, and said, "Oh Lord Moses, stop them. Eldad and Medad are prophesying in the camp." Moses said, "No, let them prophesy. If God sends His spirit down, let all the people of God be prophets."

In other words Moses did not mind the prophesying of the amateurs. In fact it is a good thing in religion to have nonprofessional prophecies and philosophies. Religion is not the possession of the professionals, and if a doctor or if a novelist desires to express himself on theological matters, we must recognize that he has a right to speak. But we must remember that he is, after all, an amateur. His theology is touching but not deep. He is trying to explain a reality. His religion had disappeared in him and then grew up again in him suddenly. This happens in many lives. But the explaining of it is not too easy.

The difficulty is this: since the field is new to him he leans too heavily on certain texts. People who live in the realm of religious thoughts know that the *Bible* is a grand mosaic and that one text modifies another.

The *Bible* is a symphony in which the variations affect the melody, and all the various forms of the melody leave, finally, a combined congruent impression on the human mind. But to pick one little phrase in the symphony and say that it is the heart of the symphony is often childish.

Cronin is over-impressed by a verse or two in the New Testament. It is true the New Testament says, "Consider the lilies of the field, they toil not, neither do they spin." It is true the New Testament says to resist not evil for all these things are part of a grander pattern. Those verses in the gospel were given under the mood of the consciousness that this earthly scene is about to vanish; the kingdom of earth is disappearing and the kingdom of Heaven is at hand. If then Heaven is about to descend on earth, it is not worthwhile fighting back even when you are treated with injustice. It is not worth while working for a living; your earthly living will end.

That gentle mood of gospel renunciation was an interim ethic and all Christians understand it. They do toil and they do defend themselves against injustice, but the mood of those verses in the gospel are nevertheless part of the texture of life, part of the symphony. And those who want to carry it out literally and in isolation can do it if they make a separate life away from the rest of mankind, if they build a monastery, hide themselves from life. There one can practice those particular virtues.

But in religion as a whole the renunciation, the giving up of ambition, is not necessarily a way to God. On the contrary, I should say that God is not lost through worthy attainment; He is lost, at least as often, through failure. All the thousands of medical students who never got enough money to finish their courses, all the starvelings, all those whom life has crushed, how much bitterness is in them? How much turn-

ing away from God there is in them! Failure can be as atheistic as success and, as a matter of fact, the ambitious drive that we have in our youth is likewise God-given.

That hunger for success is an impulse which lures us into taking on our young shoulders the burdens of the world. And if ambition is delusion, it is a blessed delusion. If the life of society were not renewed by these ambition-drugged waves of youth, it would have stagnated long ago. So that drive that he scorns at the end of the book, that drive that brought him to two successes, is not the stumbling block on the road to God at all. We do not know what the stumbling blocks are. We cannot always tell. Even the psalmist does not understand and cannot know why sometimes we go through the phase of irreligion. Why does King David himself say, "Oh, God, why standest Thou afar off in my time of trouble?"

Generally God comes when we open the door to Him. We can open our hearts in failure as well as in success, and God is discovered in the exhilaration of great achievement, a sense of gratitude and a sense of being a co-worker to the Almighty Creator, as much as He can be discovered in a time of tragedy. It is a mistake to take the few renunciatory verses in the gospel and not consider the whole gospel or not consider the whole *Bible*.

But beyond that, there is a deep religious reality in what he says. He tells carefully how when he was a medical student he did not find God in the bodies that he cut up. In the practice of medicine, although he knew the human body, he discovered in human beings more than a body. The heroism of Willie Craig with a cancer on the tongue; the comradely courage of the Welsh miner who thanked him after watching him operate on the leg under the coal ledge; Rose Donegan, the little girl of thirteen, sacrificing herself

and dying like a young saint for the children, and the Malayan supercargo on the Raivalpindar. The heroism of people taught him the values that are in life, the certain glory in the average man, certain things that make the man believe that, although we are made of the dust of the earth, there is breathed into us a mysterious spirit.

It seems to me the importance of the book, therefore, is first of all in the life he lived and what he discovered in that life. And perhaps even more is the phenomenon which he represents. This A. J. Cronin, this doctor who suddenly writes religious books, is part of a larger phenomenon. Writer after writer in our modern age, the last decade, has written religious books; writers who never touched the theme before. Sholem Asch's first novel was a typical East European realism with a heavy sexual tinge and the substratum of cynicism, but his last four or five books have been religious. Perhaps the best example is Somerset Maugham. Somerset Maugham wrote of the sodden neglected colonials in Malay and in Singapore, drearily living through their days in their club, surrounded by alien people whom they disliked and who disliked them. Somerset Maugham was the poet laureate of the cynical and the disillusioned! That he has now written *Razor's Edge*, a novel of the mystic quest, constitutes a phenomenon.

When you consider A. J. Cronin and Somerset Maugham and the dozen other writers who never wrote on religious themes before, and who in the last five years have been writing religious books, and what is more, religious best sellers—which means that millions of people want to read those books: all these things together constitute a phenomenon, a massive phenomenon that cannot be brushed aside.

It well may be that deep, far out into the ocean of the experience of the human soul, a tide has begun to turn and the modern man is

at last becoming weary of the irreligion of two generations. We cannot be sure about it but something deep is beginning to happen, and that is the significance of Cronin's life and his adventures. It is adventures in *three* worlds because he is part of a company of men who represent the first waves of what may mean a turn of the tide to another world mood. Let us put it this way: the human race has lived through great periods of religion. There was the period of the Middle Ages, immortalized in the *Canterbury Tales*, in which the spiritual was more real than the material and Heaven closer than the earth. Then, in the last century, mankind lived in another world altogether, the world of things, the world of material, the world of the tangible. And now it seems that mankind, retaining his firm step on earth, has begun to lift up his eyes unto the hills. It may be that the human race, tired of living in the one material world, has begun once more an adventure in two worlds.

AMONG OUR FRIENDS

IN last month's issue of *CARNEGIE MAGAZINE* we had the sad task of reporting the death of Howard N. Eavenson, a trustee of Carnegie Institute and Carnegie Institute of Technology since 1937. His will has just been probated and word has been gratefully received that he has generously provided for both these institutions which he served so devotedly and enthusiastically in his lifetime. Moreover, under specified conditions, some of the technical books in his valuable library may come to Carnegie Library of Pittsburgh.

It is gratifying that Mr. Eavenson recognized the important work we are doing for the community and the nation, and his confidence so thoughtfully expressed gives us renewed encouragement for the future.

NEW TRENDS IN PHOTOGRAPHY

STANLEY W. MORGAN

RESULTS of the judging of the fortieth annual Pittsburgh International Salon of Photographic Art show a continuance of the new and definite trend in pictorial photography. In former years the criticism from the viewing public and institutions that housed the exhibitions has been directed at the lack of something new in presentation of ideas and subject matter. The jury members for pictorial salons have complained of having to judge the same old hackneyed ideas, the same pictures, the same subject matter presented in the same old way. Maybe the complaint is justified after you have viewed the same wagon wheel or dewdrops on a lily pad twelve to fifteen times.

In the never ending debate between artists and photographers as to whether pictorial photography is an art or a record made by mechanical instruments, the artists have contended that pictorial photography, among other things, lacks a storytelling theme, design, and the absence of imagination on the part of the photographer as viewed in the finished product. I feel that these statements have been refuted.

In the first departure from the time-honored traditions, two artists of national repute were asked and consented to serve on the photographic jury. The result of this judging is a showing of pictures quite unlike anything that has ever been chosen before at this Pittsburgh Salon—a far cry from the soft, misty, diffused, and rather stilted prints of the past.

Instead, these photographers have used their mechanical tools to produce prints low in key, with a boldness and

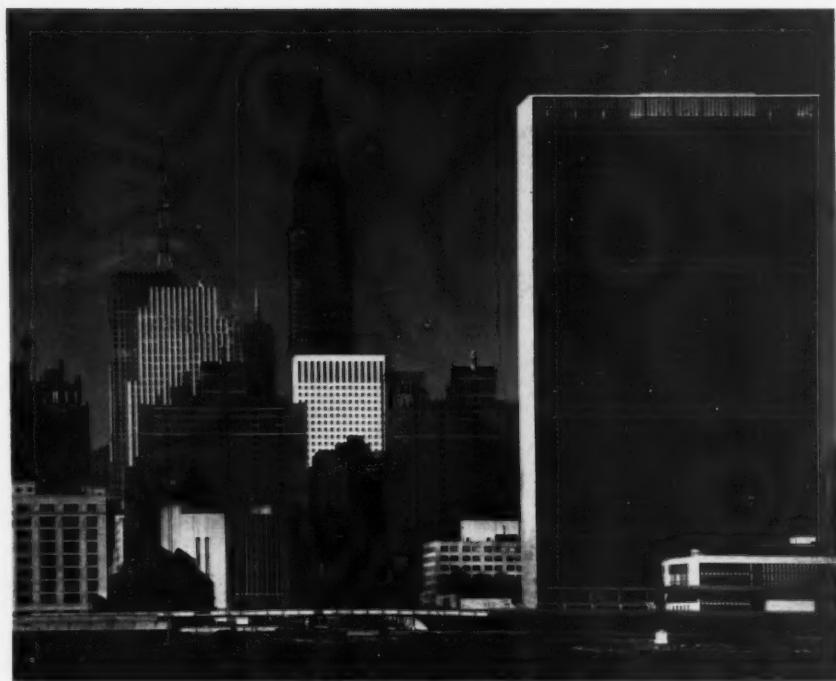
poster effect not unlike our modern trend in art but still retaining the picture excellence and quality that only a camera in competent hands can produce.

All this combined with a new understanding and vision of the possibilities of the medium has indeed made the fortieth Pittsburgh Salon above the average and very enjoyable to see. This has been made possible through a nice balance between the two extremes of static prints of the past and the excesses that are usually results of an initial experiment.

The jury members—F. Ross Altwater, F.P.S.A., A.R.P.S., of Pittsburgh, Gottlieb A. Hampeler, F.P.S.A., of Kennett Square,



FRAMED FLORAL BY JOHN H. LEHMAN



MIGHTY MANHATTAN BY OTTO LITZEL

and Bernard G. Silberstein, F.P.S.A., R.F.P.S., of Cincinnati—are to be congratulated on their selection of a fine show of three hundred prints.

Francisco Sobrino, of Mexico, contributes a moving and masterful photograph depicting the hands of a drowning person, with crashing waves in the background ready to engulf the victim again should he defeat his fate. One cannot help but make the comparison of our modern world, engulfed with the ever-present threat of war and destruction. Titled *S.O.S.*, this picture is in a small print size and finished in a low key to further carry the theme.

Everett F. Clark's print titled *Frozen Messages* is a very simple but forceful picture of ice-covered telephone poles and wires. The

maker has used vibrant black and glistening whites for a bold and pleasing picture.

Flying Spray, by J. Elwood Armstrong, is a very exciting and technically excellent print showing a crashing line of waves engulfing a speedboat. One can almost feel the cold and breathless exhilarating effect from such an experience.

Charles Baker, of Michigan, strengthens the new trend by his entry titled *The Grasshopper*, a very bold and strong vertical composition with a bull's-eye centering a window-washer who risks life and limb to help the sun shine in and give us a view of the outside world. The effect is a silhouette.

John H. Lehman gives a nice balance to the show and to those viewers who like their pictures in perhaps a lighter and more delicate

vein by framing flowers in a vase and titling it *Framed Floral*.

Ski Run Tamers by F. Wallin seems to have reached a unique design by chance or watchful waiting. But whatever his method, the results are quite unusual and very pleasing.

The Gingerbread House, submitted by Harry Koller, of Rochester, N.Y., gives the feeling of an illustration on a Christmas card or a storybook. A simple theme, coated with frosting-like snow and sparkling winter sunshine and shadows, makes an appealing picture.

Pittsburgh district photographers are well represented in this year's show with a wide variance of subject matter from photographs on industrial Pittsburgh, landscapes, and still lifes.

Portrait studies in any large number, pictures of children or animals, are missing, although these have usually been considered as "sure-fire" for salon acceptance.

The technical excellence of the prints is as usual very high, because this is one standard that does not seem to change regardless of new trends and has come to be the accepted thing in all modern-day salons. Big, shiny, and blue-toned prints are very much in evidence this year—quite a contrast to those small, dull and sepia-toned prints of the past.

Color reared its head this year and is making inroads more and more in salons that had been showing predominantly black and white prints. The vibrant and realistic effects of

Mr. Morgan, a graduate of the Art Institute of Pittsburgh, owns a sign-painting firm in Homestead. He has taken photographs for fifteen years as a hobby, and with his wife, who also exhibits in the Pittsburgh Salon, specializes in flower photography.



SKI RUN TAMERS BY F. WALLIN

hand-colored prints, oil coloring and color-processed photographs make a nice accent to the monochrome display.

The Pittsburgh International Salon has an appeal for everyone, and a person could well spend a pleasant and instructive hour or two viewing it in the third-floor galleries at Carnegie Institute through April 19.

For the Salon, 1,350 prints were submitted, of which 300 were hung; 1,480 colored slides were entered and 284 accepted. Entries came from all over the United States and five foreign countries. Thirty pictures by thirteen Pittsburghers are included. The Photographic Section of the Academy of Science and Art of Pittsburgh sponsors the Salon.

THE STORY IN BRONZE OF POMPEII AND HERCULANEUM

PAUL A. CHEW

*"I cannot easily think of anything
more interesting. . . ."*

—GOETHE about Pompeii
March 13, 1787

SINCE the first excavation of Pompeii and Herculaneum in the first half of the eighteenth century, the world has been thrilled by the decorative elegance of the objects unearthed which truly attest the graciousness of living the ancients enjoyed. With this discovery a marked influence was made on Western culture. In literature we find such great archeological publications as *The Antiquities of Herculaneum*, published in series by the King of Naples between 1755 and 1792, which gained wide circulation. Also appearing at this time were the esthetic writings of Winckelmann, the first great classical archeologist. Other literary figures such as Goethe, Schiller, and Shelley, who devoted the first lines of his *Ode to Naples* to Pompeii, were captivated by the discoveries.

Along with literature we find art being influenced strongly by these excavations. Giovanni Battista Piranesi made on-the-spot drawings of Pompeii, not only of the ruins of the city but also of many of the implements and furnishings of its everyday life. His son Francesco made a remarkable series of engravings from these drawings. Then there is the movement in art history known as the neoclassical, with paintings by David, Prud'hon and Hubert Robert, not to mention the influence on taste in painting, sculpture, and the decorative arts of the Louis XVI and Napoleonic eras, all tremendously influenced by motifs immediately derived from Pompeii.

peian art. The industrial arts of Wedgwood and Sèvres porcelains were caught up in this passion for antiquity.

No other archeological find in the world has been more fascinating for the public or for the archeologist and student of antique life than the discovery of the buried cities of Pompeii and Herculaneum. The basis for this fascination lies in the unique way these cities were preserved for almost seventeen hundred years by their abrupt burial in volcanic ash from the eruption of Vesuvius, thus freezing, if you will, all the activities of that disastrous day in 79 A.D., until the eighteenth century.

A contemporary description of the catastrophe by an eyewitness is told in two letters that the Younger Pliny wrote to Tacitus (Epp. vi.16 and 20): It began, according to Pliny, some time on August 24 in the early afternoon, with the emission of vast quantities of vapor, mostly steam, which rushed high into the air in a vertical shaft and terminated in a canopy of cloud, so that it resembled the trunk and spreading branches of a pine. As always, the emission of so much vapor at high pressure produces electrical disturbances in the atmosphere, and in vivid words Pliny describes how the cloud of vapor, black with its load of ash, was broken by tortuous streaks of fire. Pompeii and Herculaneum are now eight to ten feet deep in small pieces of pumice stone about the size of a walnut.

During the second phase violent earthquake shocks were felt, and many buildings which had survived the fall of pumice stone then collapsed. When the eruption ceased,

Herculaneum had disappeared completely. Meanwhile, the survivors of Pompeii, numbering some twenty thousand out of a population of about twenty-five thousand inhabitants, guided by the roofs that projected above the new ground level, dug down in an effort to retrieve objects of value such as furniture, works of art, and building materials. At Herculaneum such a course was impossible owing to the depth of the mud.

In the middle ages, Pompeii was quite forgotten, but the memory of Herculaneum had not been lost. In 1709 the Austrian prince, D'Elbœuf, sank a shaft that happened to strike the theater, and between 1709 and 1716, by means of underground tunnels, he ruthlessly robbed this building of its marbles and statues, seeking materials for a villa. It was not until 1738, under the patronage of Charles III of Naples, that a systematic excavation began.

Meanwhile, in 1748 other accidental finds on the site of Pompeii led to investigation there. From that time up to the present the digging has gone on almost continuously, though for the most part very slowly and with limited means. It was evident that these two towns were chiefly valuable as mines from which to stock the Naples Museum, and therefore the actual sites naturally suffered. Conditions changed after 1860 when Giuseppe Fiorelli became director of the excavations, the work becoming more systematic and the care of the buildings more painstaking.

Through the generous gift of Andrew Carnegie to the Department of Fine Arts in 1901, the Carnegie Institute is in possession of some three hundred reproductions of bronze objects found in and near Herculaneum and

Mr. Chew has been in the Department of Fine Arts at the Institute this season, but leaves soon for Hyannis, where he will be gallery director for the Cape Cod Art Association for the third summer. He took his M.A. from University of Pittsburgh last June.

Pompeii. On exhibition now in the corner room of Architectural Hall is a selection of one hundred objects of ancient art and utility from this collection. Although these specimens are not originals (the originals are in the National Museum, Naples) they are such expertly executed copies in bronze that one can scarcely tell the difference. Under the excellent supervision of De Angelis of Naples, these were reproduced by competent craftsmen even to the fine point of adding the patina. This coating of blue-green is caused by oxidation when bronze is exposed to the elements for a certain period of time. In the instance of Pompeii, the objects found had thick crusts of this patina, due to long exposure to the elements, whereas the ones found at Herculaneum had a blackened surface because, unlike Pompeii, Herculaneum was hermetically sealed under sixty feet of volcanic mud.

The exhibition includes examples of practically every use the ancients made of bronze. The displays are arranged in categories, including household objects, lighting devices, kitchen utensils, heating devices, surgical instruments, carpentry tools, musical instruments, sculpture, and small decorative art objects.

When a citizen returning from public life in the forum, the theater, the temple, or the baths, entered his house, he entered a little kingdom. Here in the quiet of his home he relaxed with the help of various comforts, especially, as wealth increased, those of good eating and drinking. The house, which was usually square or rectangular in plan, was without windows. One entered through a vestibule entrance into the atrium (living room) which had an open roof and a mosaic pool to catch rain water. Next was the peristyle or pillared court, also open to the sky, and a large sitting room, a parlor, summer and winter dining rooms, kitchen, lavatory,



HOUSEHOLD OBJECTS FROM POMPEII AND HERCULANEUM REPRODUCED IN BRONZE.
A CURRENT DISPLAY IN THE HALL OF ARCHITECTURE AT THE INSTITUTE.

house altar, several bedrooms, office or business rooms, and the slave quarters.

In the exhibition is a money chest artistically decorated with small sculptured heads, of the type found in the atrium of many well-to-do citizens' houses in Pompeii. Next to this strong box may be seen a low couch. It was on such couches that the Pompeians reclined, propped on an elbow, and ate their meals. These couches were always cushioned or upholstered, and so arranged around three sides

of a marble-topped table that the fourth side was left open for the slaves to do the serving. The varied dishes, composed of fish, oysters and other seafood, as well as chicken, venison, and pork, were prepared in quite small kitchens that were, however, lavishly equipped with crockery and other utensils, including bronze molds in the shape of hares, piglets, fish, and so on, for special occasions. Two such molds, a hare and a piglet, are on display in the exhibition, along with frying

pans, pots, and a stove that much resembles our popular barbecue pit of today.

At night the lighting of the houses was provided by a complete assortment of the various lights, candelabra and lamps that are on view in the lighting section. The little bronze oil lamps, with openings for wicks, could be used individually or, to give a brighter light, could be hung on branched candelabra.

At Pompeii most of the larger houses, both in town and country, had their own private bath suites, and large public establishments were provided for those who had no baths at home. Very often the public baths were heated by portable braziers. The very large brazier on exhibition, some six feet long, was used for heating a public bath.

Of the musical instruments arranged on the wall, the flutes and cymbals were used in festivals and dances in the theater, while the large circular horn was for war and the hunt.

There were few experienced doctors in those days, and these were naturally highly esteemed. Surgery especially enjoyed a comparatively high standard, as may be deduced from the instruments on display. There are all kinds of spatulas, lancets, tongs, scissors, midwifery instruments, and so on, of outstanding technical excellence.

In the year 1750 a great discovery was made at Herculaneum: a peristyle was found with sixty-four pillars and an oblong swimming pool. Between the pillars was a perfect gallery of bronze sculpture by Roman and Greek masters. There were thirteen large statues, nine reproductions of which are in the Institute's collection, and forty-seven busts of various kinds. Six of these busts are included in the exhibition, among which Dionysus is a great favorite.

In the early fall of 1952 Amedo Maiuri, director of the National Museum at Naples, revealed to the world the news of a superb

find, an astonishingly preserved seven-foot mural of Venus reclining on a sea shell, attended by cupids. The professor placed it between the earthquake of 63 A.D. and the searing eruption of Vesuvius sixteen years later.

Today over a thousand archeologists and workers have resumed digging out the treasures of the famous buried city. This was made possible by a grant from the Italian government, which recently voted funds for the development of southern Italy, one of the objects being the expansion of centers of interest to tourists, and another the resumption of the excavations at Pompeii. About two-fifths of Pompeii has still to be uncovered, and, under the five-year plan that Professor Maiuri has drawn up, one of the first goals will be excavation of the city's zoo, where remains of cages, subterranean passages leading to the cages, and the bones of elephants, lions, bears, and other wild animals have already been uncovered.

Probably one of the most fascinating developments of former and recent excavations has been the discovery of cavities in the volcanic ash made by the human forms as they were suffocated. Plaster of Paris has been poured into these cavities, and thereby exact moulds are made showing the features, clothing positions, and even facial expressions of the citizens, during the last days of Pompeii. Mothers have been found holding their children, dogs chained to their posts, and many citizens in their last acts of carrying away the valuables that were found clutched in their hands.

The Italian government's new policy is to leave the finds exactly as uncovered, or to put them on view in the new Pompeian museum on the grounds. This building will be used for conferences, lectures, and the like, and will incorporate a Pompeian library, a bibliographical index and a photographic library.

MAYFLOWER 1-7300

EXT. 202, E. R. ELLER SPEAKING

No poet ever had his tongue more firmly embedded in his cheek than John Donne when he advised the hopeful reader to "Go and catch a falling star," but you'd be surprised how many people seem to take him literally. That is, you would if you've never played geologist-on-the-spot at some such dispersal center of scientific information as Carnegie Museum. Hardly a week passes here in the laboratory without at least one phone call, letter, or personal visit from the proud discoverer of what looks to the uninitiated like a genuine meteorite, a fallen star from out of this world. Almost always—in fact, with only half a dozen exceptions now on record for the entire state of Pennsylvania—the prized specimen turns out to be of strictly mundane origin and negligible value.

If so many high hopes end in disappointment, some of the blame can fairly be laid at the door of human nature. The rest belongs to me and my fellow geologists for not having done a more thoroughgoing job of public education. It isn't that we don't try, but what's a handful of conscientious cold-water-throwers against the potent appeal of the unknown and far away?

I'll never forget the amateur collector who suddenly materialized in the open doorway one August afternoon during a record-breaking heat wave. He was luggering a hunk of rock that must have weighed a good hundred and twenty-five pounds, and with his own formidable bulk thrown in I couldn't help wondering if the floor would support a quarter of a ton.

Dr. Eller has been specializing in geology, invertebrate paleontology, and mineralogy at Carnegie Museum for the past twenty-two years. He is currently doing research on microfossils that help determine the age of oil deposits.

"Come in, sit down," I urged. "What is it you've got there?"

"Meteorite," he gasped, mopping his forehead. "Found it myself, over in Butler County."

Not without misgiving, I examined the specimen. It didn't take a very close inspection to identify it as an ordinary piece of Allegheny sandstone, but I tried to let him down easy.

"Look, here on this side," I showed him. "Those markings are fossil plants, so it must have come from somewhere on the earth's surface."

After all his trouble it seemed brutal to point out that plants don't grow on stars. Our job, though, is to uncover the facts no matter how many pet theories, our own or somebody else's, happen to get mangled in the process.

Meteorites have one peculiarity that probably fooled people back in Ur of the Chaldees and is still fooling them in Pittsburgh and other places today. A shooting star always looks as if it were landing somewhere beyond the horizon, but this is really an illusion caused by the curvature of the earth. These fragments falling from interstellar space burst into flame about sixty or seventy miles above the earth, and in most cases never hit the ground at all because they burn out completely before they get there.

A real meteorite is classed as either stony or metallic, depending on whether compounds of silica or iron and nickel predominate. In fairness to all finders of false ones it must be admitted that rock concretions and iron ores of various kinds are often very reasonable facsimiles. By the time you've examined a few hundred of these you can't

help developing a certain skepticism toward any report of a new discovery. Still you always go out to have a look, on the off chance that this time it may amount to something.

When I was teaching geology at the University of Pittsburgh, one of our students invited me out to his grandmother's house near Ambridge to see a small specimen that had been picked up in the middle of a road after the meteorite shower of 1886 in western Pennsylvania. This was a real stony meteorite about the size of an orange. Although it had served various members of the clan as a paper-weight and doorstop, the boy's grandmother consistently refused to sell it even for the hundred dollars offered by one collector.

Once in a while this section is called upon to function as an assay office for people who are convinced they've found a rainbow's end in the upper Ohio valley. Wherever minerals

take on a yellow color, for example in the familiar compound ferric sulphide or iron pyrite, there you have the makings of a short-lived gold rush. The most obvious difference between such ores and what the hopeful one thinks he has discovered is that the iron compounds are more than twice as hard. As a matter of fact, gold could not possibly be found within hundreds of miles of Pittsburgh because the kind of rock it occurs in just doesn't exist here. Disappointed treasure-hunters may find it consoling to recall that our revered forefathers were every bit as gullible as we are. At least once during Colonial times a whole shipload of comparatively worthless iron pyrites crossed the Atlantic to enrich the British gold supply.

All manner of odd problems in identification turn up here under the general heading of mineralogy. Besides doing a land-office

BURN DISCO[®]

The Modern Smokeless Fuel

Available in BULK . . . and in
CLEAN, CONVENIENT BAGS
... IDEAL for FIREPLACES! . .

Produced By

PITTSBURGH CONSOLIDATION COAL CO.

KOPPERS BLDG. • PITTSBURGH 19, PA.

the
ron
f a
dif-
ppe-
the
ard.
bly
tts-
s in
ure-
hat
as
ring
ara-
At-
ica-
ling
ffice

business in pseudometeorites and what is ungently described as fool's gold, we sometimes use our patent deflator to puncture even fancier bubbles. A few years ago two youngsters came into the lab with some bits of what looked like quartz in their hands and a science-fiction gleam in their eyes.

"We found these on a hillside out near Braddock," one of the boys began.

"And we think they're something from outer space," the other chimed in. "Maybe glass from a flying-machine window that exploded up in the stratosphere!"

I had no alternative but to bring them down to earth with a bump.

"It's glass all right, but not from very far off. This stuff is something the glass-makers clean out of their pots after they've finished a job. That's why it comes in strange colors like this deep green you've got here. You're likely to find pieces of it anywhere in the neighborhood of a glass factory."

People who think an igneous intrusion is a device for smashing a fire-alarm box are liable to get confused when they find hard, dark-red crystals in rock formations around places like the Adirondacks and the Connells-ville region in Pennsylvania. These are garnets, semiprecious stones that form when a dike (alias igneous intrusion) comes up through sedimentary rock and causes a realignment of the molecules. I remember one specimen the size of a bantam pullet's egg, brought in by a fellow who was sure he had found a ruby worth a Rajah's ransom. Rubies are corundum and are not often found outside of India, so if you come across what looks like one here at home, don't be in a hurry to order that second yacht.

Sometimes an inquiry gets passed halfway around the Museum before it reaches the right section. There is considerable traffic of this kind between my lab and "Pop" Kay's. Every fossil man is of course a geologist ex-

officio, not to mention ipso facto and *inter alia*. From time to time either or both of us may be asked to determine the age of some geological formation, and since even the dicta of science are based to some extent on individual judgment, we have been known to arrive at a stalemate that could only be resolved after prolonged reconsideration of the evidence by all concerned. When it comes to fossils, the way we draw the line is with a backbone. If the specimen has one, that immediately puts it in "Pop's" bailiwick. Otherwise it's my baby, unless it turns out to be a fossilized plant that the owner has mistaken for a fragment of snake or horse or some other animal, in which case LeRoy Henry takes over as paleobotanist. Most of the time people tend to place their fossil finds too high on the evolutionary scale because the higher forms are the familiar ones. A common example is the sea lily, a marine animal that attaches itself to the sea bottom by a stem-like structure bearing some resemblance to a string of vertebrae. The finders of these stems are invariably surprised to learn that what they thought was part of a good-sized skeleton really belonged to a little creature something like a starfish.

The fact that the question you ask tomorrow may very likely have been answered for somebody else last week does not mean we are not interested. On the contrary, all inquiries are welcome—even those that lead straight into a well-worn rut. In the first place, it's worth going on a hundred wild-goose chases to get at one real find. In the second place, any geologist would rather talk shop than eat, and there's a broad streak of missionary in most of us. And finally, curiosity is something we like to encourage for its own sake whenever we get a chance, because if nobody had ever tried to figure out something he couldn't understand at sight, where do you think science would be today?



Now... Blackboards of Steel!

That's right, these school blackboards are made of porcelain enameled steel. They're easy to write on with ordinary chalk, and, of course, they're easy to clean. You can get them in a wide variety of sizes and colors. By making steel for boards like this, United States Steel is helping to build better schools . . . and remember, better schools build a stronger America. Only steel can do so many jobs so well.



U N I T E D S T A T E S S T E E L

THE JOY OF LEARNING

Are They Handicapped or Are We?

W. LEROY BLACK

A HARSH, scraping sound, so foreign in the quiet woods, took the shape of two spindly legs dragging heavy braces over the stone path. I caught up with the slow-moving camper and geared my gait to his. After a few minutes of conversation I realized that I had moved too fast along the same trail on my two good legs, for I had missed the "stink horn," the burrow of the tiny shrew, a red-eyed vireo's nest, and other points of interest. Actually it is this physical slowdown that enables these so-called handicapped children to see and hear more than the able-bodied campers in the same area. After hearing that I had arrived, other brace-clad, plaster-bound, and crutch-winging boys and girls moved in from all directions. The campers began bringing forth many interesting things they had found since last week's visit. All their finds had been marked. There were worms, snails, caterpillars, twigs. The day faded into the sounding of taps as we tried to identify, explain the uses and value of, the reasons for, and the ever big "why" of nature to these city children camping in the country for the summer.

I shall never forget an incident that happened during a meeting held at Camp Easter Seal by the camp and extension staff to discuss the various ways and means of getting these children beyond the wall of trees surrounding the camp. As we conducted the

Dr. Black is supervisor of extension services at Carnegie Institute. Holder of a doctorate from the University of Pittsburgh, he was city park naturalist from 1933 until he came to the Institute in 1949.

Future plans for conservation education will be discussed in Lecture Hall on April 8 at 8:00 p.m.

meeting a small girl suddenly appeared on the porch of an adjoining cabin. Her steps, weighted down by heavily leaded shoes, dragged only a few feet before stopping. As she stopped and tested, she gazed up in the cherry tree overhead and watched a pair of cowbirds. Soon she moved onward a few more painful steps before halting again. This time she looked at the branches and fading flowers of a small dogwood tree. A small gutter in her path proved too great an obstacle and she tumbled to the ground. As I started to move toward her, shaking staff heads indicated that the problem of getting up was a problem of getting ahead, of walking, and all this was up to the camper to master. During the hour-long meeting this little girl, learning to walk all over again after being stricken with polio, only covered a hundred feet. Suddenly we all realized how we must plan our summer recreation program; this little girl showed us the way.

We think of the handicapped as of many different kinds: children from broken homes, those who are blind or deaf, or who may have twisted, nonworkable limbs, others who may not think as fast, or as much, and who rate low on the IQ test. But as the days grow into years of experience in working, teaching, and playing with these children, I often wonder if we, the normal in most ways, physically and mentally, are not really the handicapped. We have no time to stop, look, and listen. We turn our children over to the school teacher, baby-sitter, and television. Our daily, weekend, and vacation program is one of rush to get there and rush to get back.

With the Western Pennsylvania School for

the Blind we have established a course of study in natural history, a program that does not follow a hard and fast outline, but one that is flexible to meet the changing needs and desires of the children and their teachers. Starting with the study of the live animals that can be used as pets in the nursery school and kindergarten, the step-by-step introduction of other animal and plant life moves upward through the grades. Meeting once a week, the program reaches the same child four times each year with a different but related course of study. In the final grades, eleven and twelve, the students review all that has gone before and receive a final shot of conservation in the practical testing of soil and first-hand participation in soil erosion, planting, and silting problems. At this level they are no longer students but teachers as well, equipped to tell others much more about practical conservation and outdoor education than the average college graduate.

Perhaps the greatest contribution to those who cannot see is the removal of the fears and superstitions that surround animal and plant life. There is no way through records, radio, books, or present exhibits, that blind children can learn the calls and songs of birds, the scraping and chattering of squirrels, the bedlam of frog and toad music in the spring, and the hundreds of practical hearing experiences around them. This education can only be the product of field trips and quiet study trips by lakes and ponds.

In like manner the deaf from DePaul Institute explore the fields and woods around their school. On rainy days the twigs, leaves, cocoons, old bird nests, all make up the conservation course of study. Each year these deaf Boy and Girl Scouts achieve four or five of the merit badges associated with natural history. Children and teachers alike know so little about the kinds, uses, and values of animal and plant life, that the program can

start on any level and will, so far as knowledge and interest are concerned, never finish. We have added something that physically or mentally handicapped bodies can explore. They are living what they have been watching others demonstrate for them.

Spring and fall visits by the Traveling Museum to these children help stimulate a stronger interest and give them a feeling that there is something they can do that is worth while. They can make bird houses and feeding stations, and they can tell others about the need for conserving animal and plant life. Through this program they develop a feeling of belonging to a community and not just misfits being carried along by other people who feel sorry for them.

Only a few of the institutions needing and wanting this service have been reached. Dozens more could be added to our present list, which is as follows: Western Pennsylvania School for the Blind, DePaul Institute for the Deaf, Bedford School for Cerebral Palsy, Children's Hospital, and Industrial Home for Crippled Children.

This conservation education program then is one that reaches out to all members of the community. We realize that what we are doing here at Carnegie Institute is not necessarily new; other states such as Michigan, California, New Jersey, and Texas have progressive programs of conservation even in their school curriculum. We, however, have and will continue to make every effort to encourage the incorporation of conservation education into all facets of Greater Pittsburgh and its environs. We owe much to the handicapped children, for by their intense desire to learn they have shown us the way in our teaching. To live successfully in one's environment one must understand and appreciate each part of it by acquiring a wide range of first-hand experiences, personal contacts, and rich observations.

Favorite foods

FROM FOREIGN LANDS . . .

FROM INDIA came one of man's most popular taste-teasers — the piquant pickle.

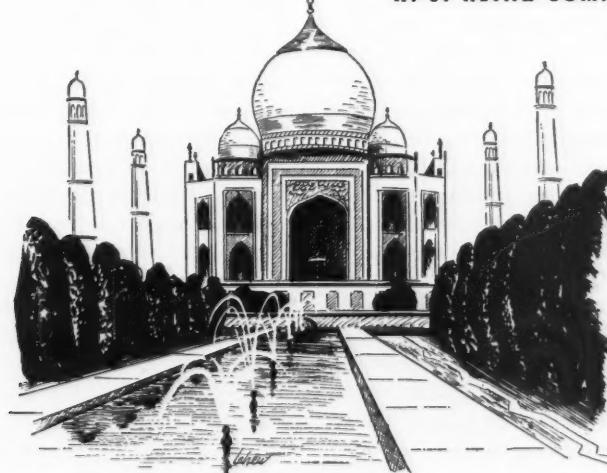
● It was in the lush gardens of this near-tropic land that cucumbers were first cultivated. The growing season was all too short, however; and to preserve their cool crispness for leaner months, the natives hit upon the idea of preserving these vegetables in a solution of salt, vinegar, sugar and selected spices. Mangoes, peppers, even apricots, were processed the same way; and pickled fruits and vegetables became coveted delicacies of the Indian table.

● European adventurers treasure-hunting in the East tasted the tempting pickles, liked their sharp staccato flavor and eagerly took them back home. The fame of pickles followed the footsteps of civilization westward, until today there is hardly a country that does not enjoy their spicy goodness.

● H. J. Heinz Company and Pickles, among the earliest of the 57 varieties, have been synonymous for more than three-quarters of a century.

H. J. HEINZ COMPANY

57



ART AND NATURE BOOKSHELF

PERRY DAVIS

THE ENDURING ART OF JAPAN
By LANGDON WARNER (\$6.50)
Harvard University Press, 1952
113 pages, 92 illustrations
Carnegie Library file no. 709.52 W23

THERE is always the danger of oversimplification in the "little" book, but I do not believe this is true of Langdon Warner's book *The Enduring Art of Japan*. One immediately senses that these intimations on Japanese art are really the result of years of study and warm associations in the Orient. Mr. Warner has been one of the main instigators of the great ART OF JAPAN exhibition currently showing at the Metropolitan Museum in New York City.

This is not a history book but rather a survey of the arts in Japan and their development, which means of course that it is concerned with history. Originally the chapters were a series of lectures delivered to the Lowell Institute of Boston and the Honolulu Academy of Arts. In that form, although much of the conversational tone has been kept admirably intact, I feel sure that the slide projections themselves added a further sense of continuity. However, there is an intentional emphasis on the shifts and changes of social, religious, and esthetic orders. In this way the author can best express what he believes are the enduring qualities of these people in the face of wars, internal strife, and exterior influences. Disarmingly direct, there is a certain vividness in the telling, and his very abruptness of manner bespeaks great authority.

Much of the author's ability to convey to us the all-over tone of any particular epoch, as well as things seen in more factual light, is due to his own method of study. He de-

scribes this as a process of "immersion"—really a kind of "living in," walking and talking in good companionship with the native scholars, with all the people of a neighborhood, stopping to take tea with them and to chat about the everyday things of their good life.

Not being of either the romantic or mystical frame of mind, as are so many Western writers dealing with the subject, Mr. Warner's special point of view comes from a real appreciation of the people, their crafts and techniques. He attempts to go to the very heart of a tradition when he writes: "And yet folk art is indispensable if we would know the genius of a people. For it is certain that neither precious materials nor embellishment add much to our knowledge of the craftsman's accomplishment."

The book opens with that first broad flood of Chinese culture upon the ancient capital of Nara in the sixth century and shows how, after its hesitant beginning, it overtook and completely claimed these people by the eighth century, issuing forth in an unmistakably Japanese stream. Here is a brilliant account of the eighth-century craftsmen and artisans of Nara, their personal plights and social standing in the advent of the Chinese traditions, "so conscious of what they lacked, materially and spiritually, so avid to receive it" and "so capable to make use of it."

Since the Chinese heritage which engendered the arts in Japan was a Buddhist creed, we may say this art was of a religious character. For the credulous Japanese, already a religious man with his primitive Shinto worship, the adoption of Buddhist philosophy was not too difficult, not only because of the broadness of the Buddhist foundation but also

because of the very inclusive nature of Shintoism. For Shinto, that all-pervasive animism, has always been the artist's way of life, in which natural forces are "always the subject matter for those who produce artifacts from raw materials."

Knowing the heart and the pulse beat of these simple people, Mr. Warner illuminates their special kind of humanism while speaking of the marvelous scroll paintings, which were developed between the eleventh through the fourteenth centuries. He contrasts these with the scrolls of China, which were seldom concerned with man's activities; and then gives us a thrilling account of the many adventures and glorious battles thus depicted during the robust Kamakura period, distinguishing them again from the paintings of the older Fujiwara period as stilted artifice, rather than either art or life.

For a small book, this one is so full of ideas and intimations, charged with an intensity of feeling and vision, that the sheer pleasure of a first reading may not disclose its full rewards and deeper significance. I know I shall want to reread the chapter on the Great Decorators. For that was the period when painting and architecture assumed a new function in the great halls and auditoriums of the Momoyama shoguns. With an explosive outburst of color and broad composition, painting became redefined as pure decoration. The exuberance of certain innovators, beginning with the Sotatsu, created such gigantic and splendid works in which generous areas of opaque colors were played against the brilliance of metallic backgrounds, while still others dripped pools of pigment into already wet colors, swirling, spreading, and partly

Mr. Davis has been teaching drawing and art history at Carnegie Tech the past seven years. He is a graduate of John Herron Art Institute in Indianapolis. He spent last summer painting in Mexico, and in the autumn conducted groups through the 1952 Pittsburgh International.

blending them. This may have been the original "drip" school of painters, which has its counterpart in our own contemporary art.

Although such parallels are easily recognized, I do wish the author might have included a chapter on contemporary art in Japan. For haven't even some of our own most avant-garde painters, Franz Kline for instance, shown in the Japanese galleries? From Toulouse-Lautrec through Matisse and the younger painters of the free calligraphic style, the Western artist has little by little adapted the forms of the Orient to his own purposes. How, then, have our Western styles affected the younger painters in Japan today? Certainly our own International Exhibition posed a few questions of this kind.

Among the most interesting illustrations in the book are those dealing with the brush strokes seen in paintings, compared to photographs of certain natural forms. The aim is not to show the resemblance between these formal strokes and nature, but rather to show how formality which does not copy nature in the particular is still so wonderfully successful in representing her. Mr. Warner, of course, is speaking of these brush strokes as an alphabet of forms. For surely at the root and basis of nearly all Oriental art is the calligraphy, learned in childhood and becoming an easy-flowing form of expression in the hands of a mature artist.

The last chapter of the book deals with the ritual and ceremony of teas, flower and garden arrangements in reference to Zen philosophy, and Zen, in turn, in relation to Art. For evidences of this subtle philosophy in the arts, we find great restraint combined with imaginative abandon, and form that is realized through sheer suggestion. When Mr. Warner writes, "There is no kind of art more studied in method, or less labored in effect," I believe he has summarized that which we perceive as being particularly Japanese.

Something has been done about Color

COLOR and "weather" formerly had much in common.
Nothing much was done about either.

There still is not very much a person can do about the weather except perhaps prepare for it.

About color, however, there are a great many things that can, and are being done.

Pittsburgh research and experience have proved that

One—Color has inherent energy

Two—Color can be used scientifically

In its work with color, Pittsburgh found that some colors induce happiness and some make us sad. Other colors make us calm and some tend to cause confusion.

These and other color facts have been incorporated into Pittsburgh's Color Dynamics—the internationally famous basis for modern painting and decorating.

Color Dynamics is an outstanding contribution to better living for millions of Americans.

It has created new and pleasant surroundings in factories, hospitals, schools, homes, stores and other places in which men and women work and live.

The drab, bleak, inefficient or inharmonious color schemes of yesteryear are being changed with Color Dynamics to smooth, beautiful and functional color patterns as modern and efficient as the world of tomorrow.



PITTSBURGH PLATE GLASS COMPANY



CARNEGIE
INSTITUTE PRESS

BOARD OF TRUSTEES

The following thirty-six trustees serve both Carnegie Institute and Carnegie Institute of Technology, and eighteen of them (starred) are also trustees of Carnegie Library of Pittsburgh. Their committee memberships are indicated.

EDWARD DUFF BALKEN
Fine Arts.

JAMES H. BEAL
Reed, Smith, Shaw & McClay. *Fine Arts.*

FREDERICK G. BLACKBURN
Vice President, Mellon National Bank and Trust Company. *Museum, Tech, Auditing, Advisory.*

WALTER J. BLENKO
Blenko, Hoopes, Leonard & Buell. *Chairman, Executive Committee, Carnegie Institute of Technology; Finance.*

*JAMES M. BOVARD
President, Carnegie Library, Carnegie Institute; Chairman of the Board, Carnegie Institute of Technology.

*ARTHUR E. BRAUN
Advisory Committee, Mellon National Bank and Trust Company. *Buildings and Grounds.*

*SAMUEL B. CASEY
Vice President, John F. Casey Company. *Buildings and Grounds.*

*CHARLES F. DINAN
City Council. *Pension.*

*PATRICK T. FAGAN
City Council. *Music Hall.*

BENJAMIN F. FAIRLESS
Chairman of the Board, United States Steel Corporation. *Museum, Tech.*

*THOMAS J. GALLAGHER
President, City Council. *Buildings and Grounds.*

H. J. HEINZ II
President, H. J. Heinz Company. *Museum, Pension.*

*JAMES F. HILLMAN
President, Harmon Creek Coal Corporation. *Fine Arts, Library.*

ROY A. HUNT
Chairman, Executive Committee, Aluminum Company of America. *Fine Arts, Tech, Finance, Advisory.*

JOHN F. LABOON
Consulting Engineer. Chairman of the Board, Allegheny County Sanitary Authority. *Tech, Music Hall.*

*DAVID L. LAWRENCE
Mayor of Pittsburgh. *Fine Arts.*

RICHARD K. MELLON
Chairman of the Board, Mellon National Bank and Trust Company. *Museum, Advisory.*

AUGUSTUS K. OLIVER
Finance, Pension, Tech, Advisory.

*WILLIAM R. OLIVER
Assistant Treasurer, Jones & Laughlin Steel Corporation. *Fine Arts, Museum.*

*THOMAS L. ORR
Vice President, Mellon National Bank and Trust Company. *Fine Arts, Tech, Finance, Advisory.*

*GWILYM A. PRICE
President, Westinghouse Electric Corporation. *Tech.*

JAMES C. REA
Vice President, Oliver Iron and Steel Corporation. *Museum, Music Hall, Pension, Finance.*

*WILLIAM M. ROBINSON
Reed, Smith, Shaw & McClay. *Finance.*

*BENNETT RODGERS
City Council. *Library, Museum.*

CHARLES J. ROSENBLUM
President, Rosenblum Finance Corporation. *Fine Arts.*

FREDERIC SCHAEFER
President, Schaefer Equipment Company. *Museum, Fine Arts.*

*EMANUEL F. SCHIFANO
City Council. *Museum.*

SIDNEY A. SWENSRUD
President, Gulf Oil Corporation. *Tech.*

*WILLIAM T. TODD, JR.
President, Board of Public Education. *Library.*

*JOHN F. WALTON, JR.
T. Mellon and Sons. *Buildings and Grounds, Museum.*

JOHN C. WARNER
President, Carnegie Institute of Technology. *Tech.*

*FREDERIC G. WEIR
City Council. *Buildings and Grounds, Tech, Advisory.*

WILLIAM P. WITHEROW
Music Hall, Tech, Advisory.

*A. L. WOLK
City Council. *Auditing, Fine Arts, Library, Advisory.*

LAWRENCE C. WOODS, JR.
Equitable Life Assurance Society of United States. *Museum, Pension.*





**They last,
and last
and last**

Those tough and rugged Gulf Tires will *take it!* They're built to give you longer, safer mileage all year 'round. The built-in sidewall protection, plus extra-strong cords, really help give you that *extra something you need* in a tire. See the Great Gulf Tire today. It's your *better tire* buy "in the long run."

GULF TIRES

AT YOUR GULF DEALER'S

CARNEGIE MAGAZINE
4400 Forbes Street
Pittsburgh 13, Pa.

University of Michigan,
General Library,
Ann Arbor, Michigan.

Section 34.66 P.L.& R.
U.S. POSTAGE PAID
Pittsburgh, Pa.
Permit No. 307

Form 3547 Requested

R.
AID